

4.2.D. 0513010504.

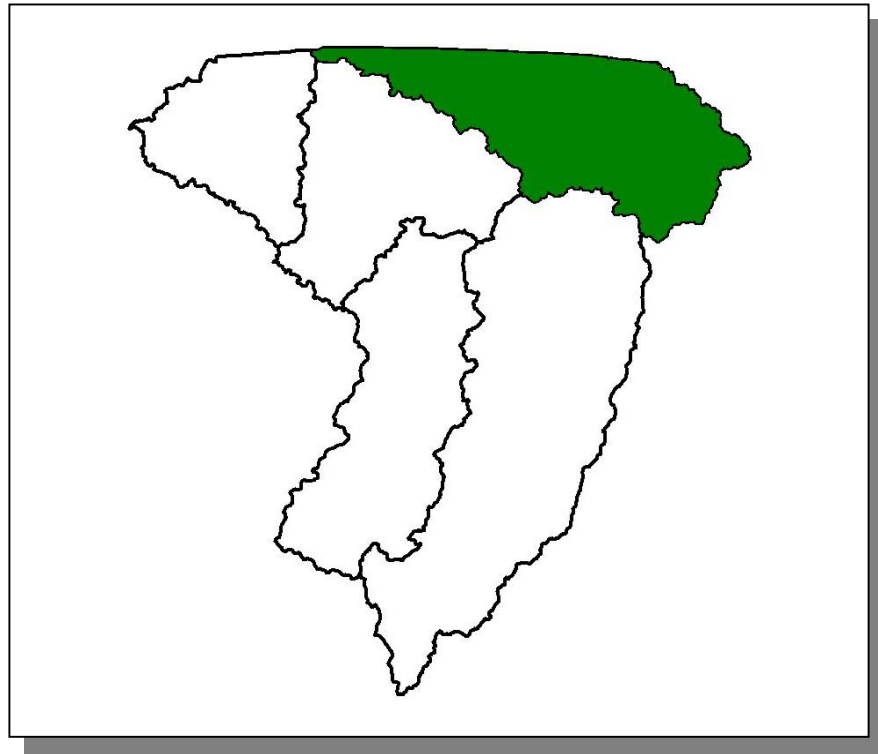


Figure 4-103. Location of Subwatershed 0513010504. All Obey River HUC-10 subwatershed in Tennessee boundaries are shown for reference.

4.2.D.i. 051301050401 (Wolf River).

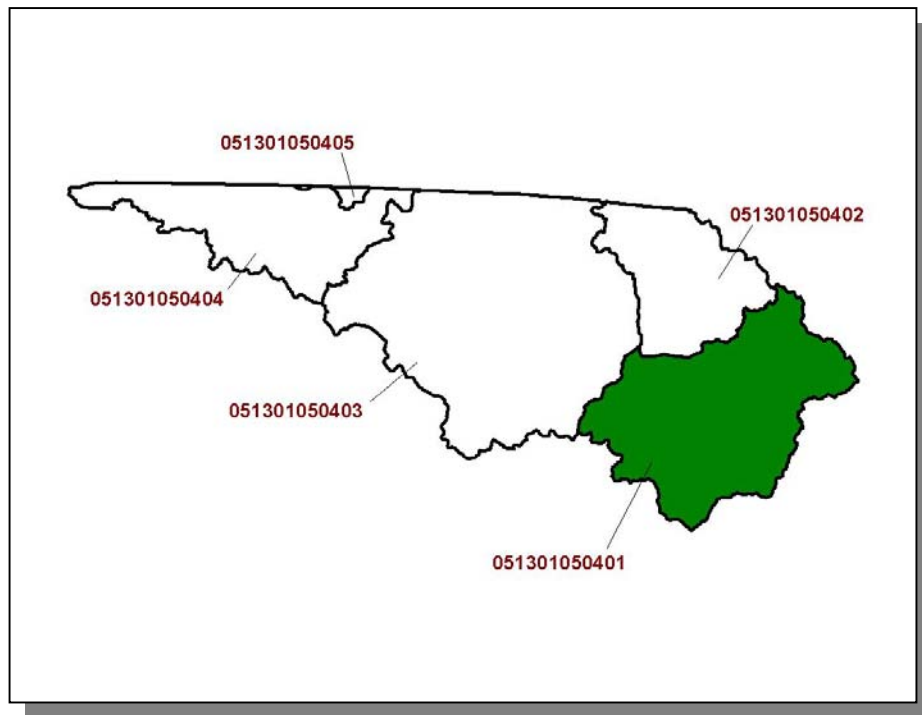


Figure 4-104. Location of Subwatershed 051301050401. All Obey River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

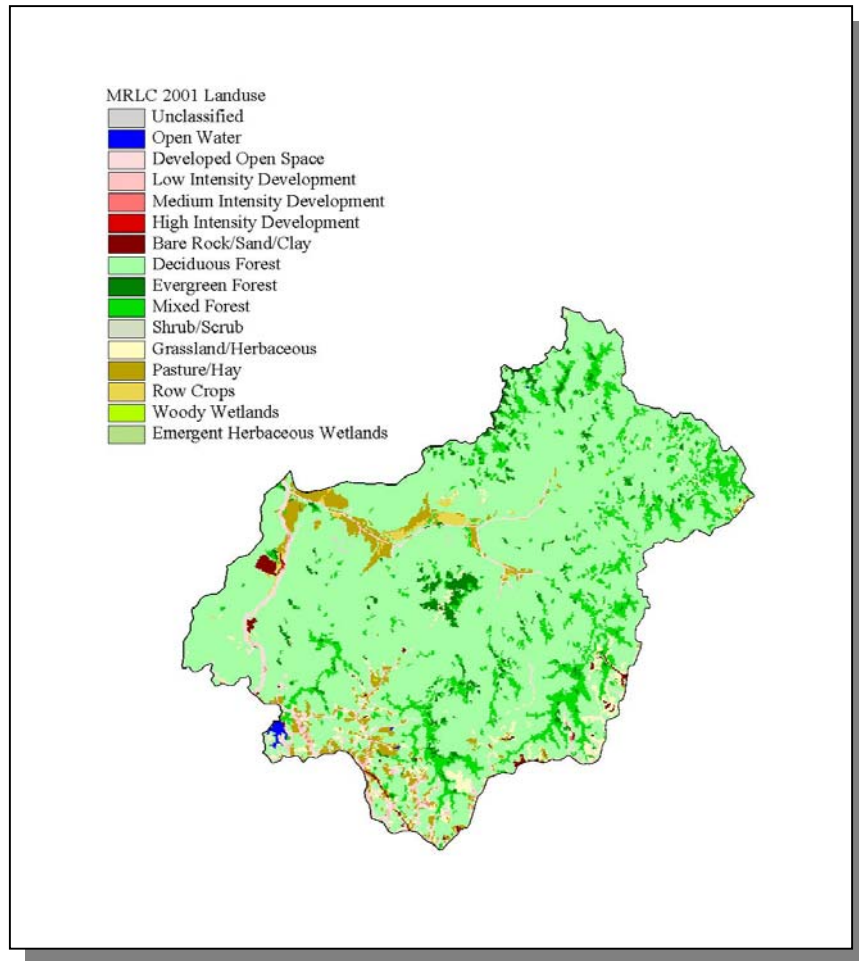


Figure 4-105. Illustration of Land Use Distribution in Subwatershed 051301050401.

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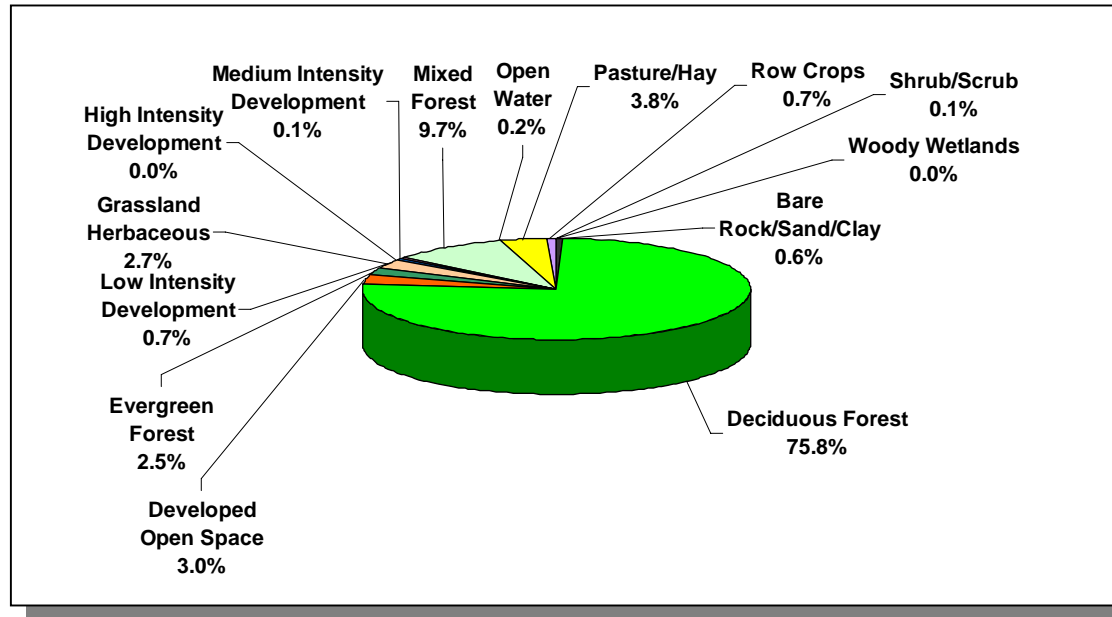


Figure 4-106. Land Use Distribution in Subwatershed 051301050401. More information is provided in Appendix IV.

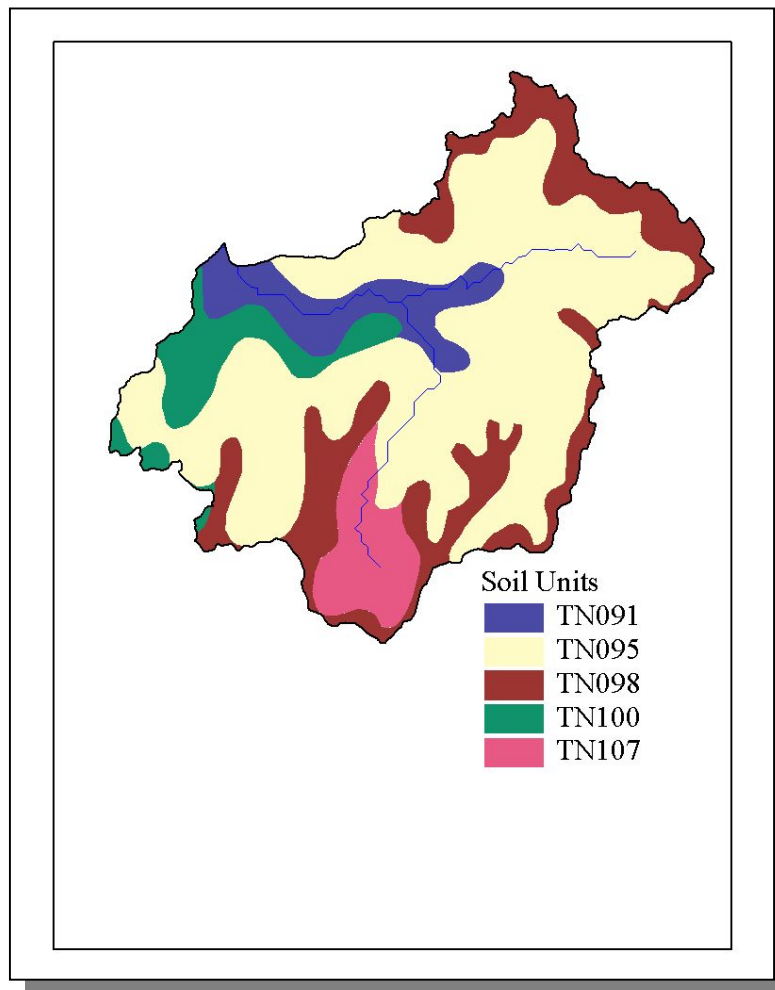


Figure 4-107. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050401.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN091	0.00	B	2.95	5.86	Loam	0.34
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN100	0.00	B	1.14	3.35	Silty Loam	0.21
TN107	1.00	C	6.34	4.84	Loam	0.28

Table 4-94. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050401. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Fentress	14,669	15,920	16,625	8.32	1,221	1,325	1,383	13.3

Table 4-95. Population Estimates in Subwatershed 051301050401.

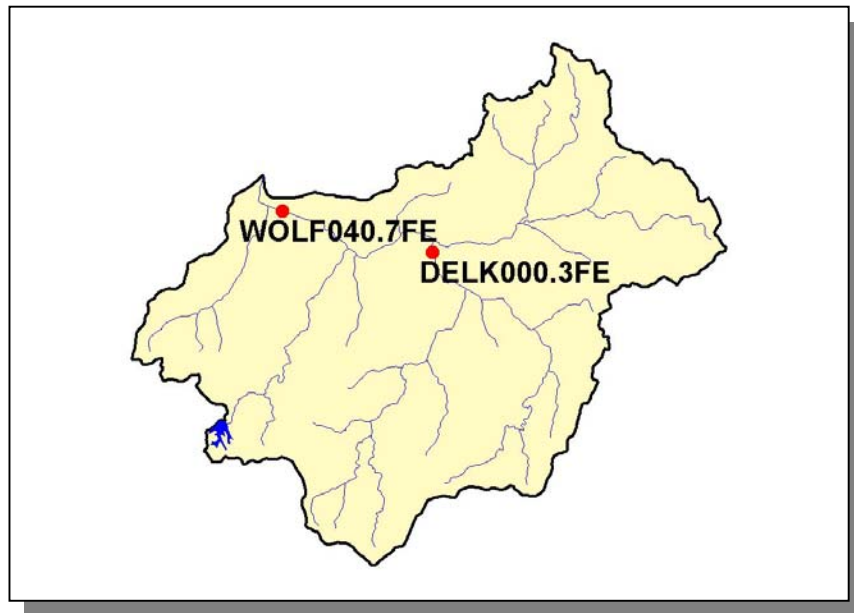


Figure 4-108. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301050401. More information, including site names and locations, is provided in Appendix IV.

4.2.D.i.a. Point Source Contributions.

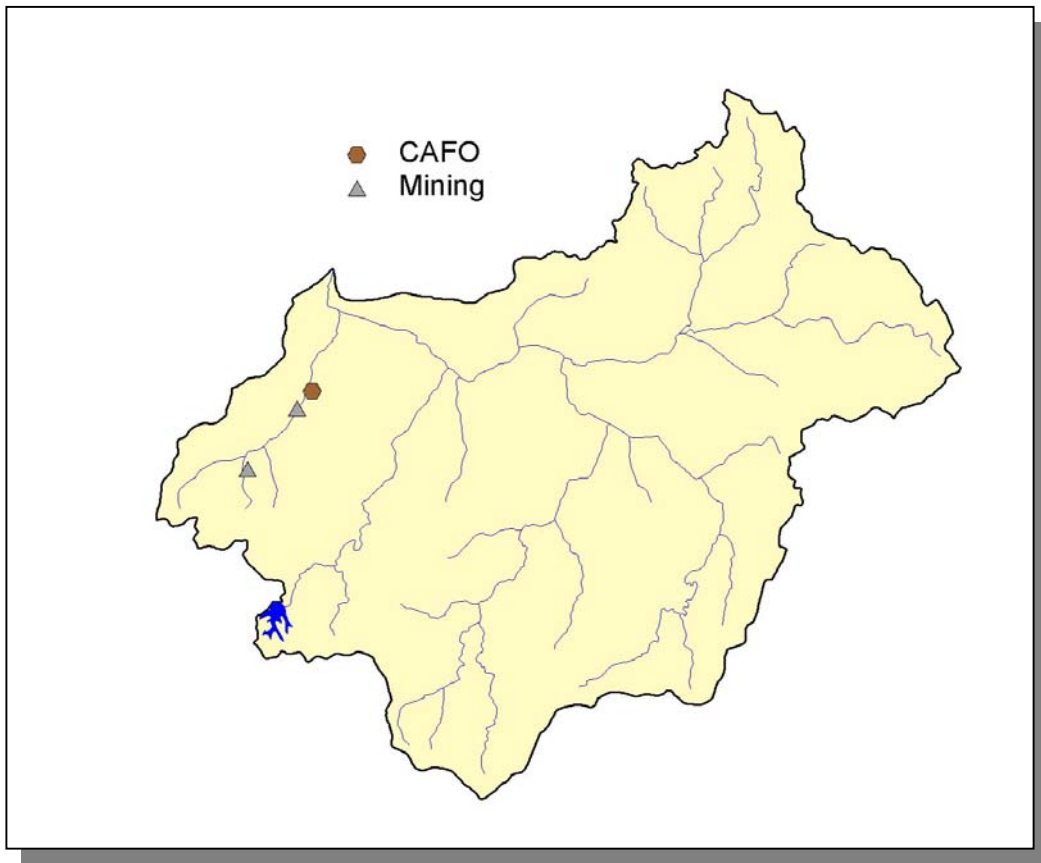


Figure 4-109. Location of Permits Issued in Subwatershed 051301050401. More information, including the names of facilities, is provided in Appendix IV.

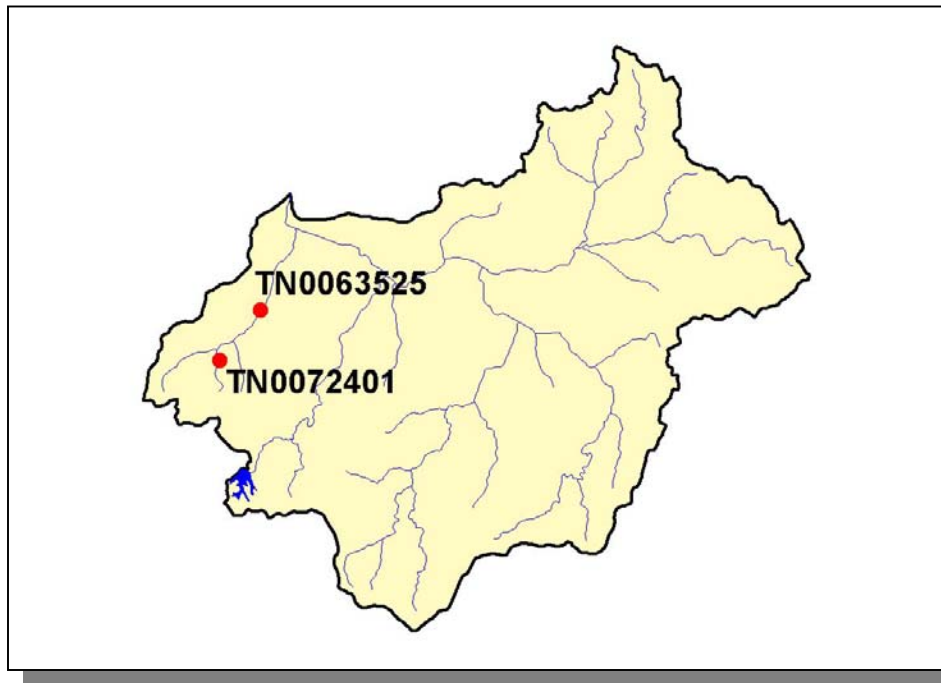


Figure 4-110. Location of Active Mining Sites in Subwatershed 051301050401. More information, including the names of mining operations, is provided in Appendix IV.

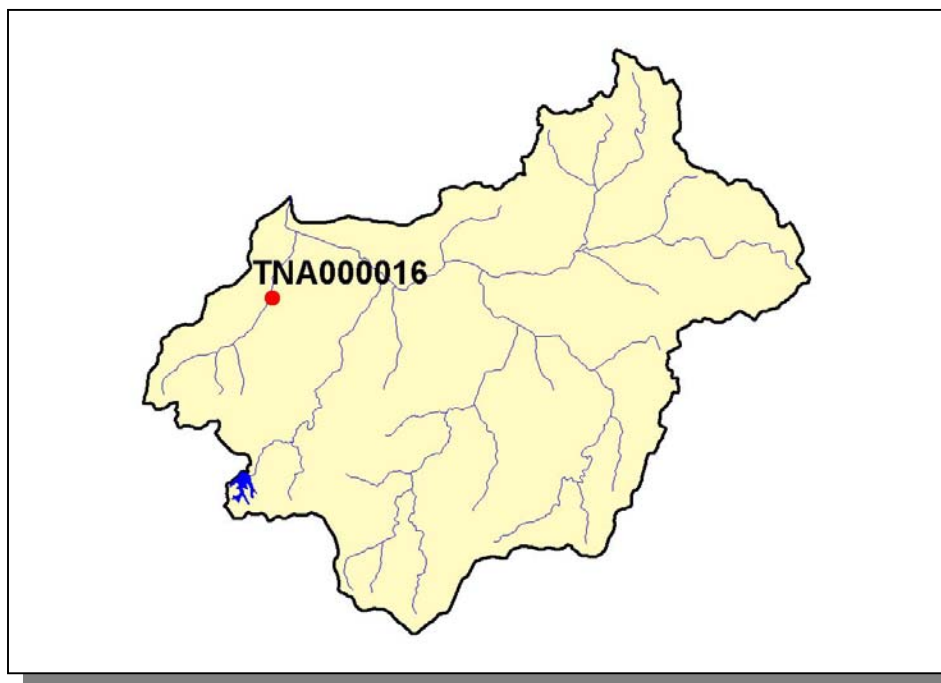


Figure 4-111. Location of Concentrated Animal Feeding Operations (CAFO) in Subwatershed 051301050401. More information, including the names of facilities, is provided in Appendix IV.

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4.2.D.i.b. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
225	483	12	<5	203,934	20	<5

Table 4-96. Summary of Livestock Count Estimates in Subwatershed 051301050401.

According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
Fentress	8,058	17,259	430	474	7,290,026	729	79

Table 4-97. Summary of Livestock Count Estimates in Fentress County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Fentress	244.1	244.1	3.6	14.3

Table 4-98. Forest Acreage and Annual Removal Rates (1987-1994) in Fentress County.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.72
Legumes, Grass (Hayland)	0.56
Grass, Forbs, Legumes (Mixed Pasture)	0.27
Corn (Row Crops)	16.18
Soybeans (Row Crops)	6.00
Wheat (Close-Grown Cropland)	43.40
Other Vegetable and Truck Crops	15.94
Farmsteads and Ranch Headquarters	0.40

Table 4-99. Annual Estimated Total Soil Loss in Subwatershed 051301050401.

4.2.D.ii. 051301050402 (Rotten Fork Wolf River).

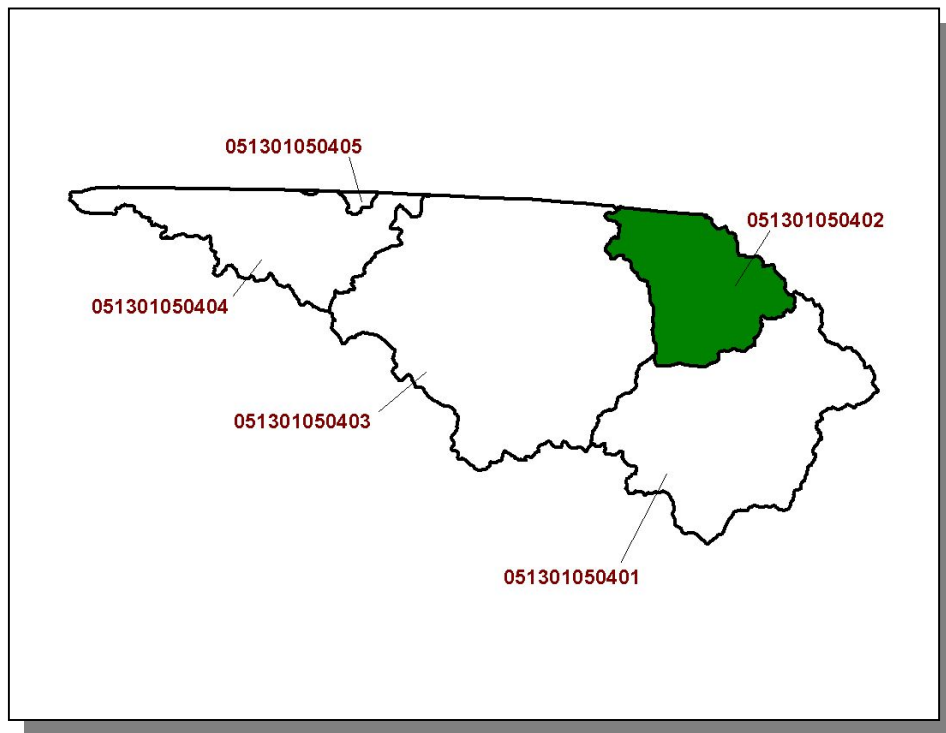


Figure 4-112. Location of Subwatershed 051301050402. All Obey River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

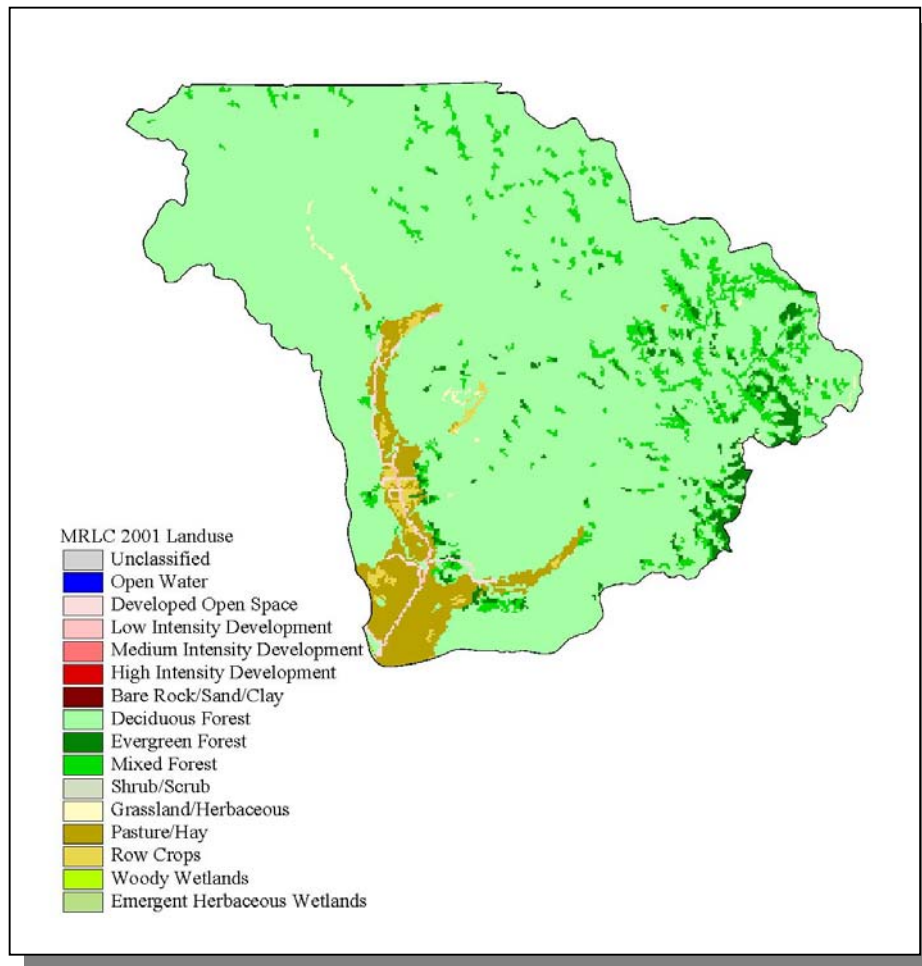


Figure 4-113. Illustration of Land Use Distribution in Subwatershed 051301050402.

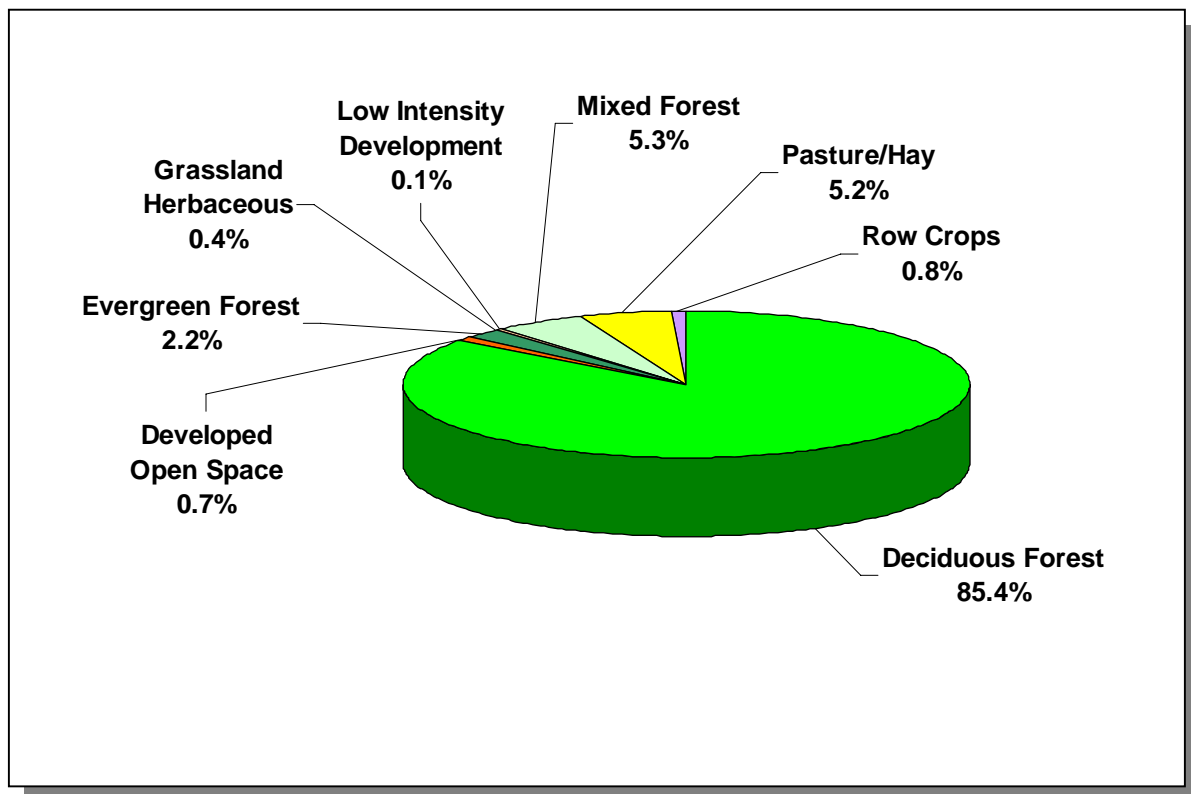


Figure 4-114. Land Use Distribution in Subwatershed 051301050402. More information is provided in Appendix IV.

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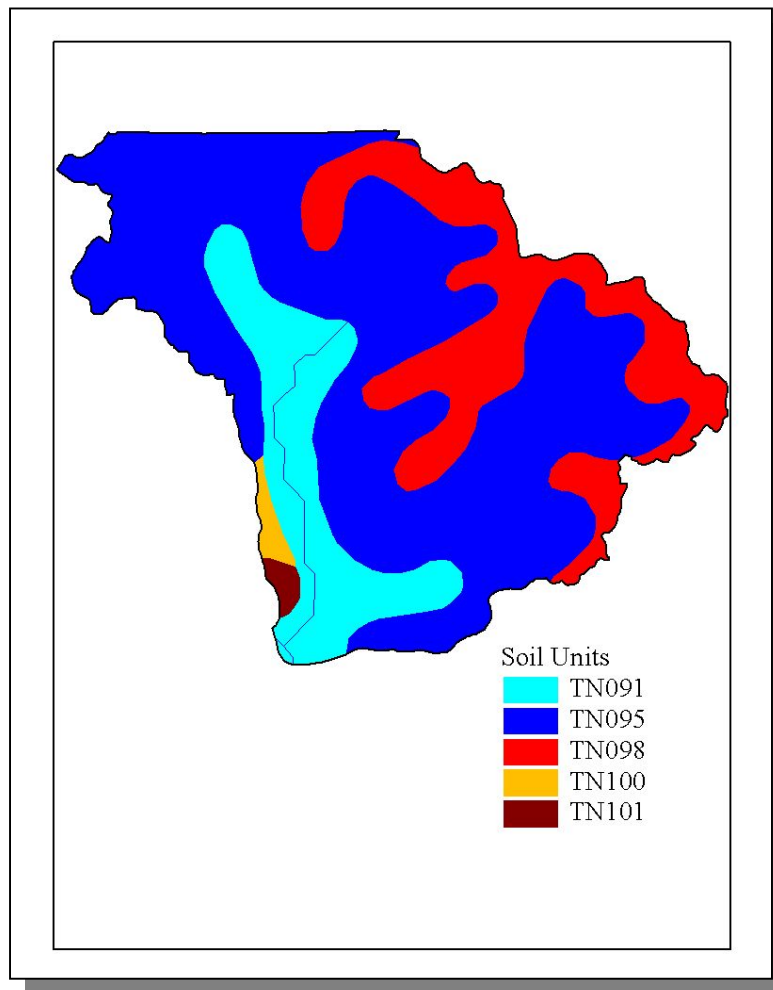


Figure 4-115. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050402.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN091	0.00	B	2.95	5.86	Loam	0.34
TN095	0.00	B	2.35	5.12	Loam	0.31
TN098	1.00	C	3.98	4.82	Loam	0.32
TN100	0.00	B	1.14	3.35	Silty Loam	0.21
TN101	0.00	B	1.71	5.39	Loam	0.35

Table 4-100. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050402. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Fentress	14,669	15,920	16,625	2.29	336	365	381	13.4
Pickett	4,548	4,631	4,945	5.04	229	233	249	8.7
Total	19,217	20,551	21,570		565	598	630	11.5

Table 4-101. Population Estimates in Subwatershed 051301050402.

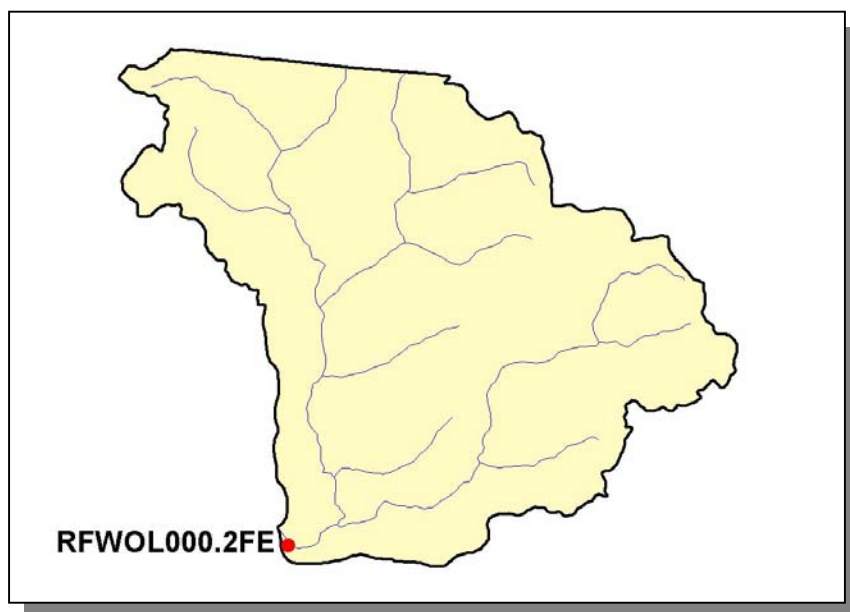


Figure 4-116. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301050402. More information, including site names and locations, is provided in Appendix IV.

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4.2.D.ii.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.D.ii.b. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
218	464	11	<5	186,495	19	<5

Table 4-102. Summary of Livestock Count Estimates in Subwatershed 051301050402.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
Fentress	8,058	17,259	430	474	7,290,026	729	79
Pickett	5,986	10,864	19	285	0	99	0

Table 4-103. Summary of Livestock Count Estimates in Fentress and Pickett Counties.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat..

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Fentress	244.1	244.1	3.6	14.3
Pickett	68.4	68.4	0.2	0.6

Table 4-104. Forest Acreage and Annual Removal Rates (1987-1994) in Fentress and Pickett Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.89
Grass (Hayland)	0.11
Legumes, Grass (Hayland)	0.34
Grass, Forbs, Legumes (Mixed Pasture)	0.46
Corn (Row Crops)	16.18
Soybeans (Row Crops)	6.00
Wheat (Close-Grown Cropland)	43.40
Tobacco (Row Crops)	23.18
Other Vegetable and Truck Crops	15.94
Farmsteads and Ranch Headquarters	3.57

Table 4-105. Annual Estimated Total Soil Loss in Subwatershed 051301050402.

4.2.D.iii. 051301050403 (Wolf River).

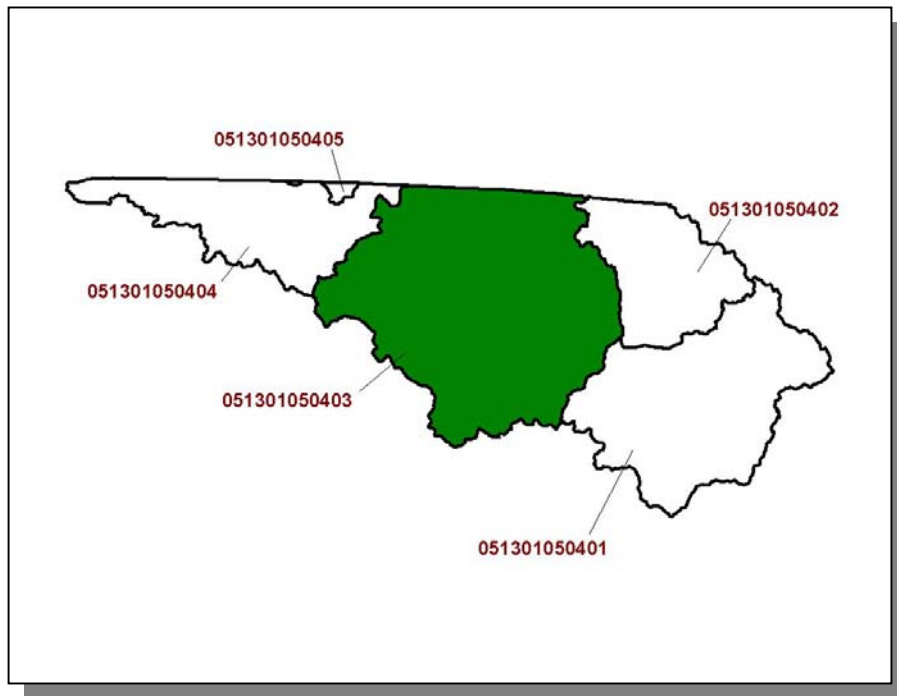


Figure 4-117. Location of Subwatershed 051301050403. All Obey River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

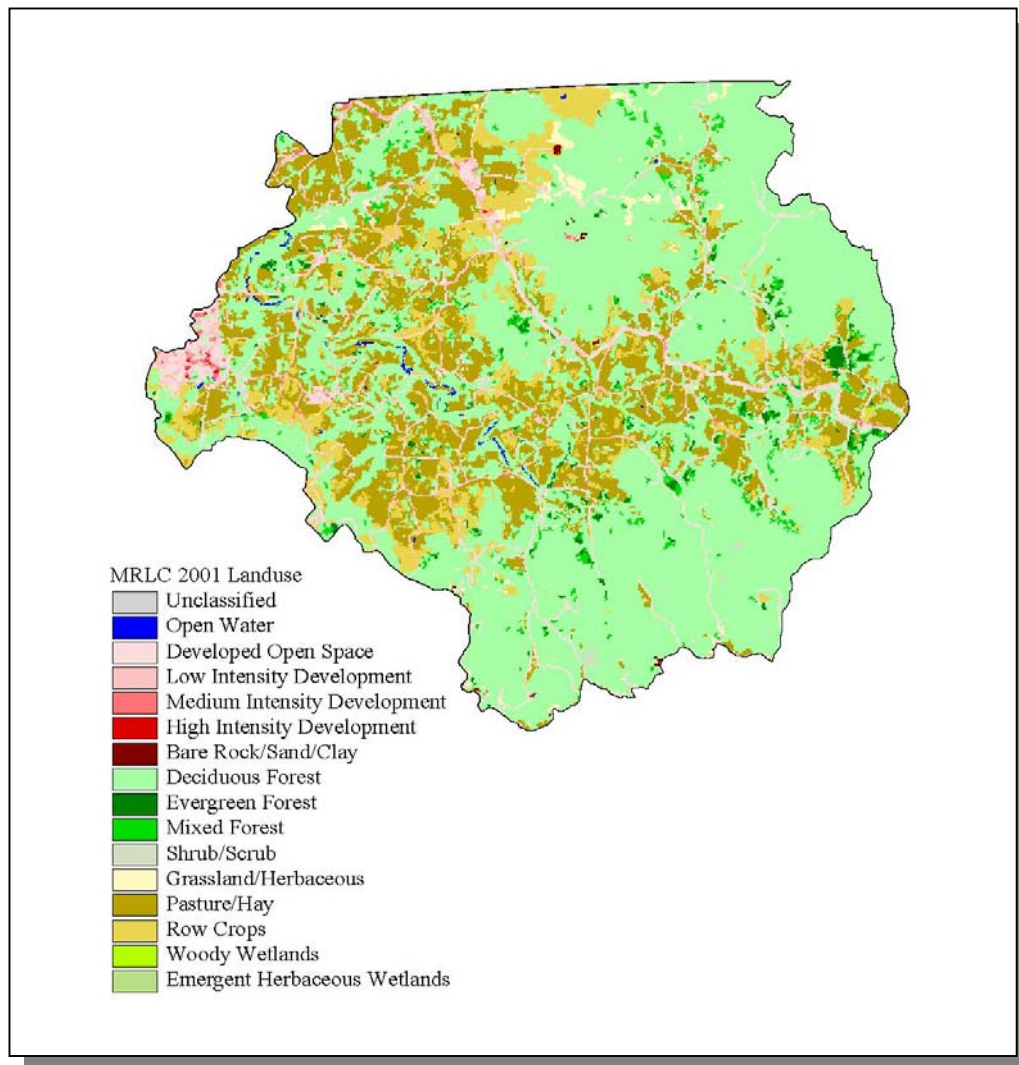


Figure 4-118. Illustration of Land Use Distribution in Subwatershed 051301050403.

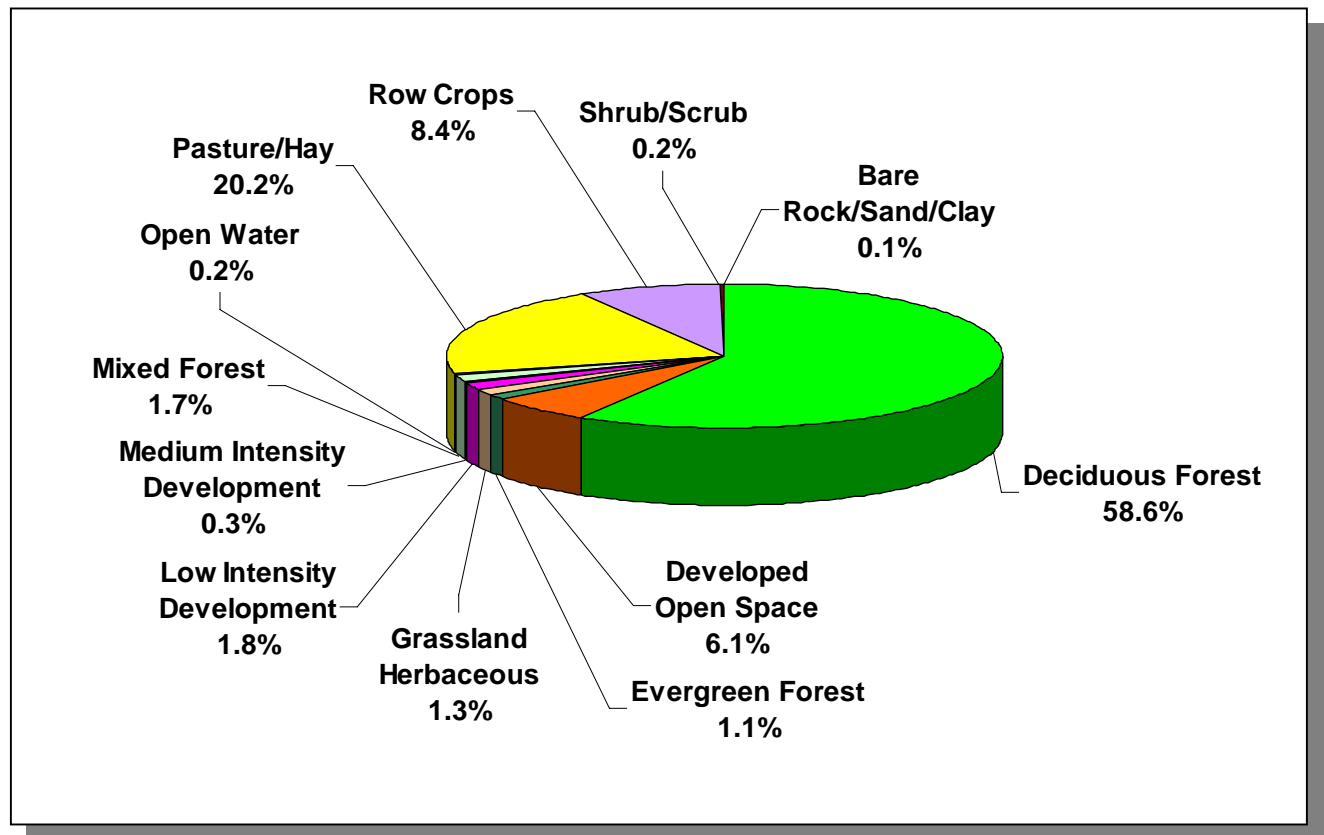


Figure 4-119. Land Use Distribution in Subwatershed 051301050403. More information is provided in Appendix IV.

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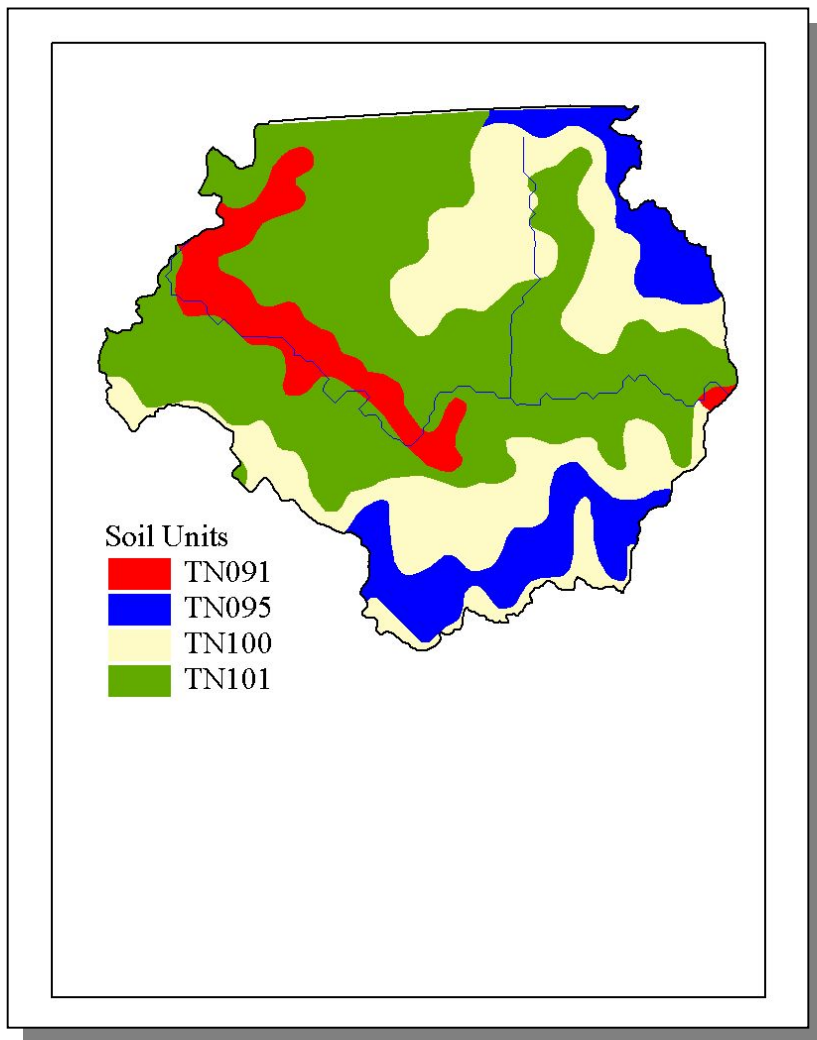


Figure 4-120. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050403.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN091	0.00	B	2.95	5.86	Loam	0.34
TN095	0.00	B	2.35	5.12	Loam	0.31
TN100	0.00	B	1.14	3.35	Silty Loam	0.21
TN101	0.00	B	1.71	5.39	Loam	0.35

Table 4-106. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050403. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Fentress	14,669	15,920	16,625	4.65	683	741	774	13.3
Pickett	4,548	4,631	4,945	24.52	1,115	1,136	1,213	8.8
Total	19,217	20,551	21,570		1,798	1,877	1,987	10.5

Table 4-107. Population Estimates in Subwatershed 051301050403.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Byrdstown	Pickett	998	429	308	115	6

Table 4-108. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051301050403.



Figure 4-121. Location of Historical Streamflow Data Collection Sites in Subwatershed 051301050403. More information is provided in Appendix IV.

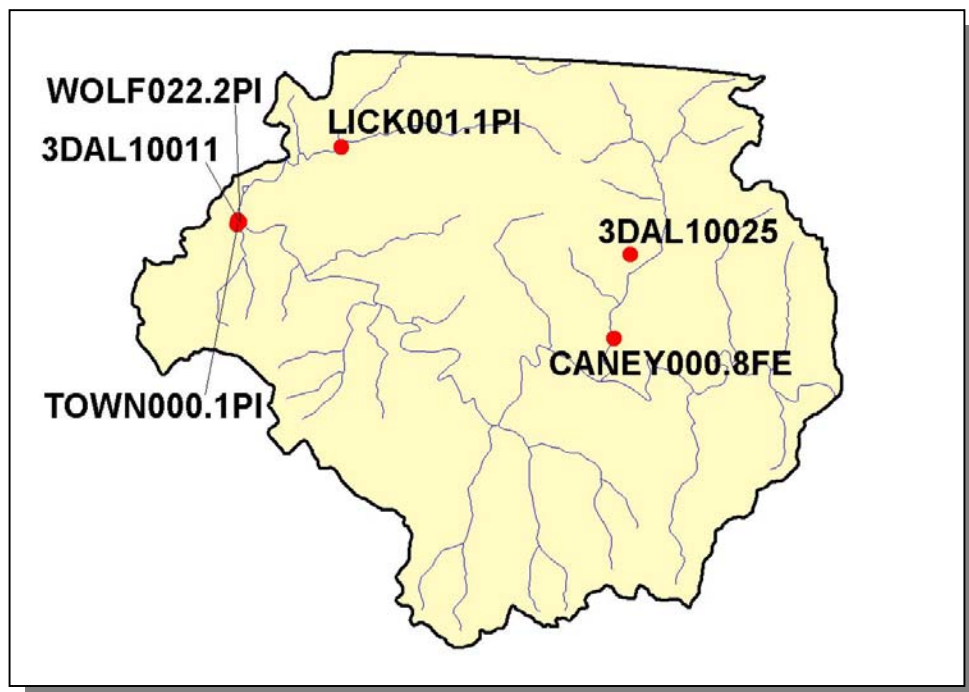


Figure 4-122. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301050403. More information, including site names and locations, is provided in Appendix IV.

4.2.D.iii.a. Point Source Contributions.

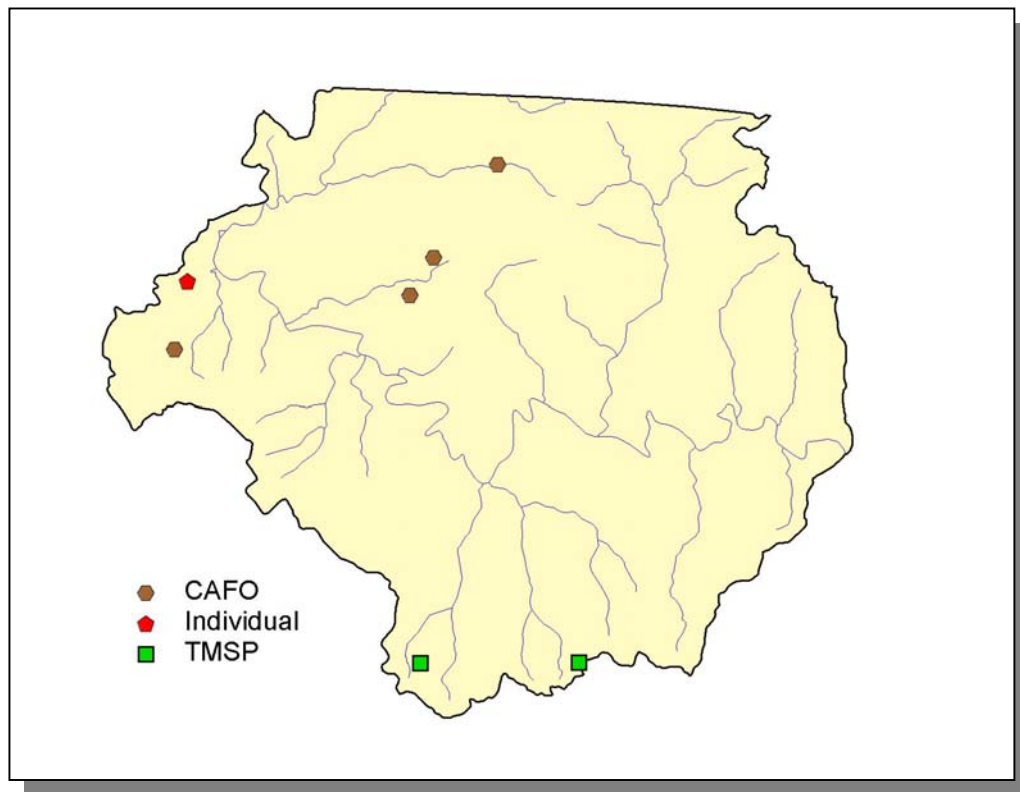


Figure 4-123. Location of Permits Issued in Subwatershed 051301050403. More information, including the names of facilities, is provided in Appendix IV.



Figure 4-124. Location of Active NPDES Sites in Subwatershed 051301050403. More information, including the names of facilities, is provided in Appendix IV.

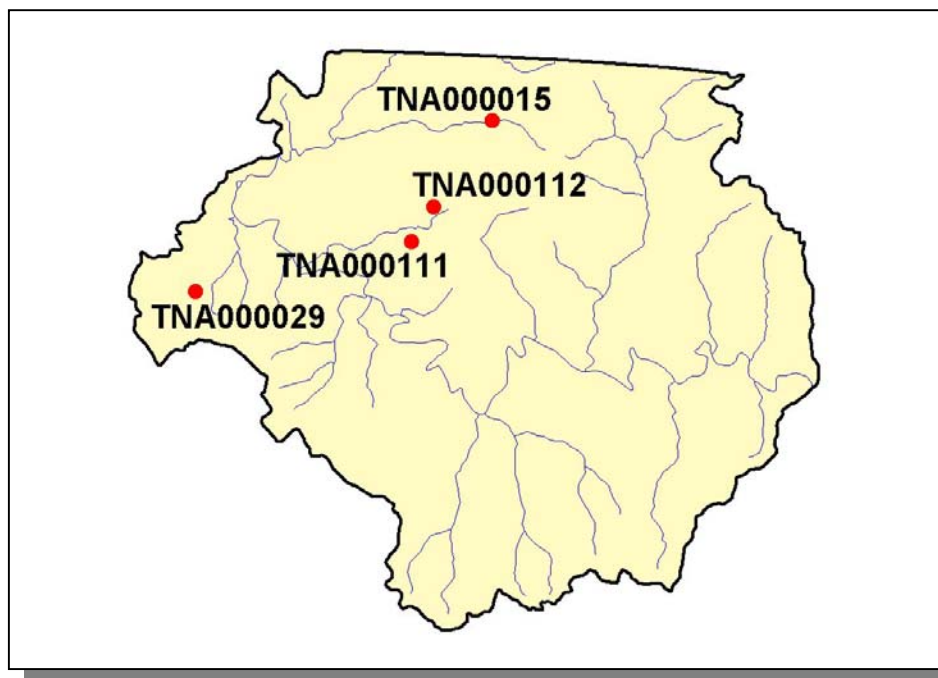


Figure 4-125. Location of Concentrated Animal Feeding Operation (CAFO) in Subwatershed 051301050403. More information, including the names of facilities, is provided in Appendix IV.

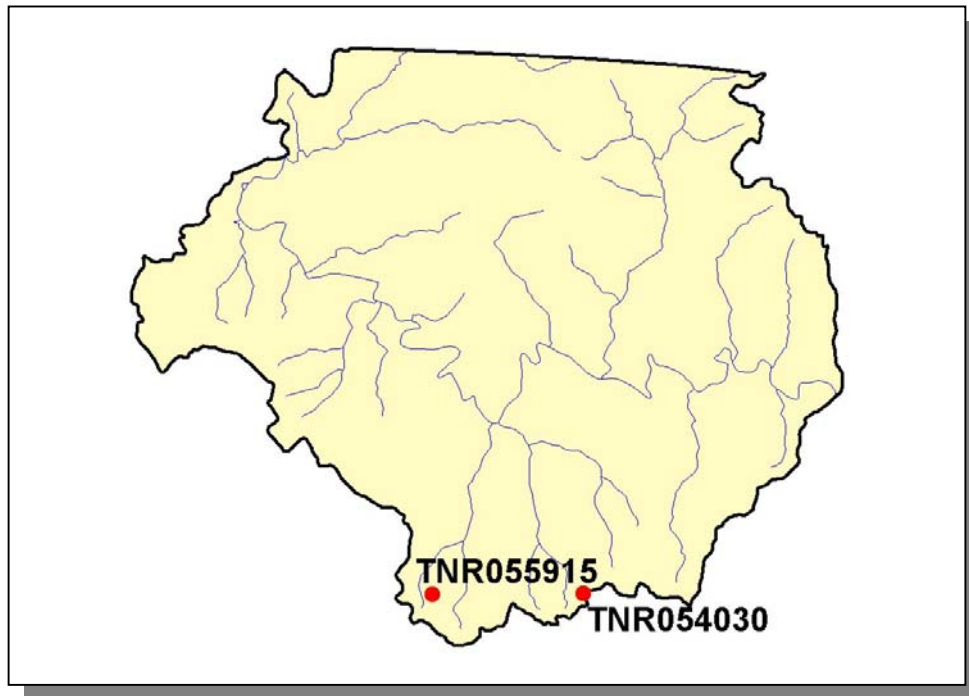


Figure 4-126. Location of TMSP Sites in Subwatershed 051301050403. More information, including the names of facilities, is provided in Appendix IV.

4.2.D.iii.a.i Dischargers to Water Bodies Listed on the 2004 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 051301050403:

- TN0062626 (Byrdstown STP) discharges to an unnamed tributary @ RM 0.4 to Town Creek @ RM 0.1



Figure 4-127. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 051301050403. More information, including the names of facilities, is provided in Appendix IV.

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PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0062626			0		

Table 4-109. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051301050403. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

PERMIT #	P	FLOW
TN0062626	X	X

Table 4-110. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051301050403.

PERMIT #	WET	NH ₃	N	Hg	TRC	TSS	SETTLEABLE SOLIDS	CN	DO	pH
TN0062626	X	X	X	X	X	X	X	X	X	X

Table 4-111. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051301050403. WET, Whole Effluent Toxicity; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

PERMIT #	E. coli	FECAL COLIFORM
TN0062626	X	X

Table 4-112. Bacteria Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051301050403.

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4.2.D.iii.b. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
3,454	6,445	38	7	489,726	97	5

Table 4-113. Summary of Livestock Count Estimates in Subwatershed 051301050403.

According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
Fentress	8,058	17,259	430	474	7,290,026	729	79
Pickett	5,986	10,864	19	284	0	99	0

Table 4-114. Summary of Livestock Count Estimates in Fentress, Overton, and Putnam Counties.

According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Fentress	244.1	244.1	3.6	14.3
Pickett	68.4	68.4	0.2	0.6

Table 4-115. Forest Acreage and Annual Removal Rates (1987-1994) in Fentress and Pickett Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.97
Grass (Hayland)	0.11
Legumes, Grass (Hayland)	0.23
Grass, Forbs, Legumes (Mixed Pasture)	0.56
Corn (Row Crops)	16.18
Soybeans (Row Crops)	5.99
Tobacco (Row Crops)	23.18
Wheat (Close-Grown Cropland)	43.40
Other Vegetable and Truck Crops	15.94
Farmsteads and Ranch Headquarters	5.05

Table 4-116. Annual Estimated Total Soil Loss in Subwatershed 051301050403.

4.2.D.iv. 051301050404 (Dale Hollow Lake).

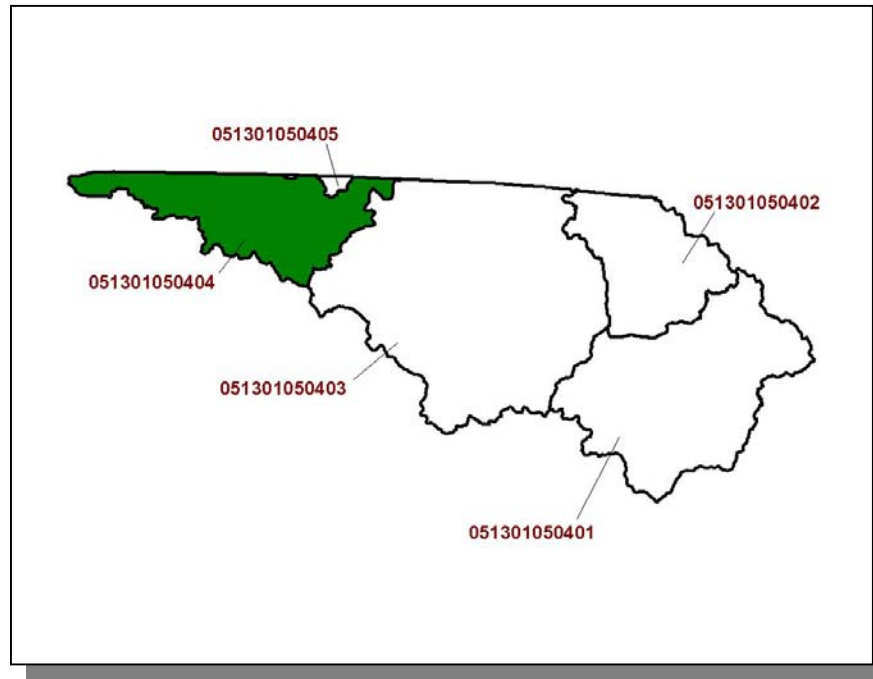


Figure 4-128. Location of Subwatershed 051301050404. All Obey River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

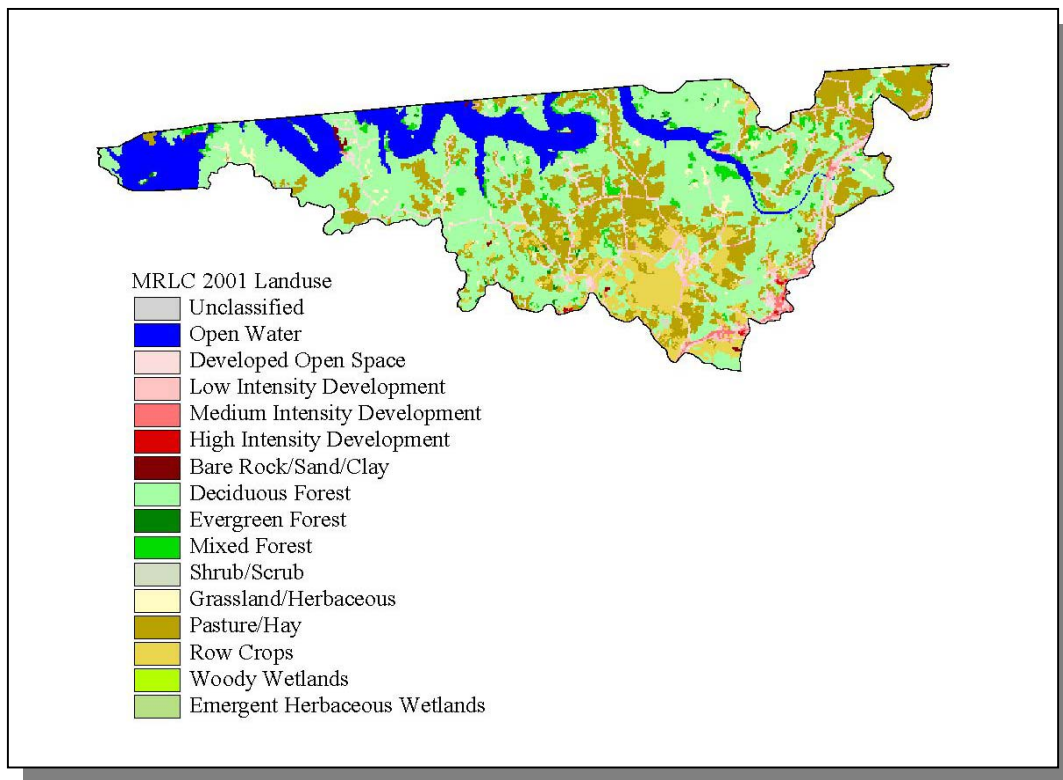


Figure 4-129. Illustration of Land Use Distribution in Subwatershed 051301050404.

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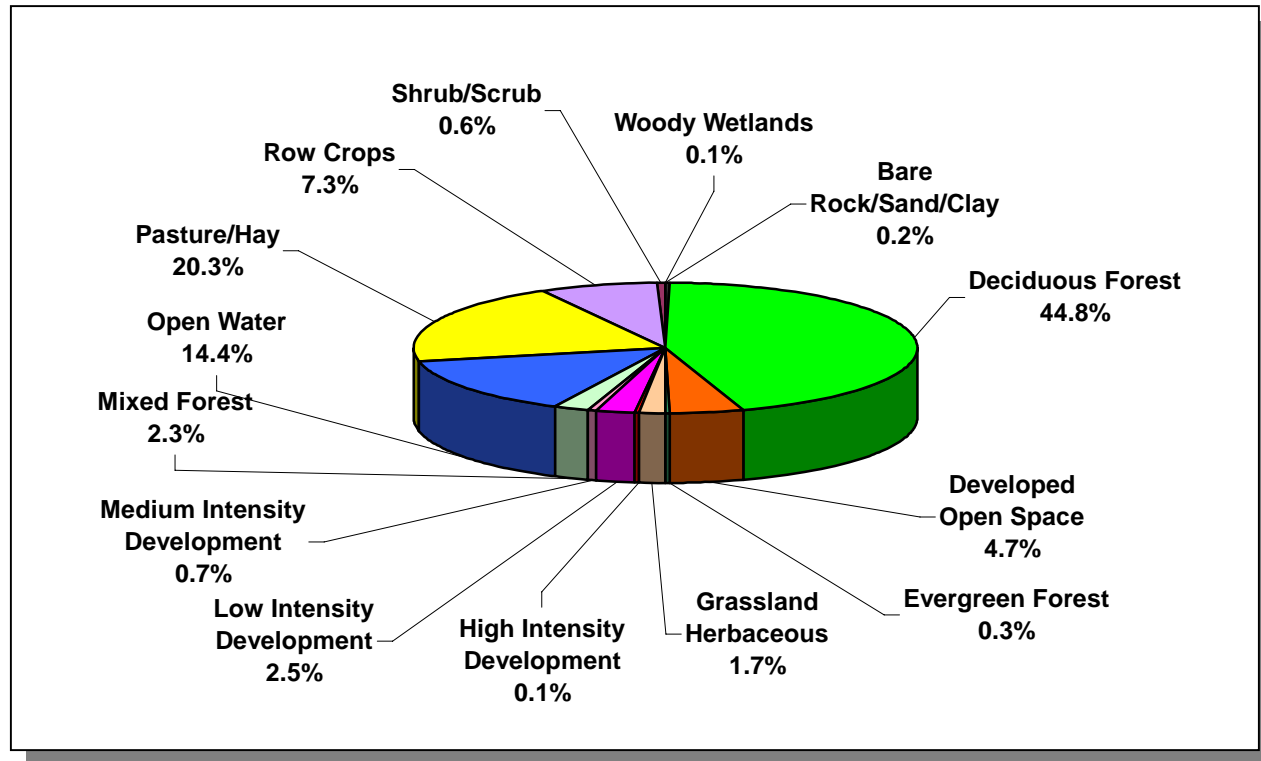


Figure 4-130. Land Use Distribution in Subwatershed 051301050404. More information is provided in Appendix IV.

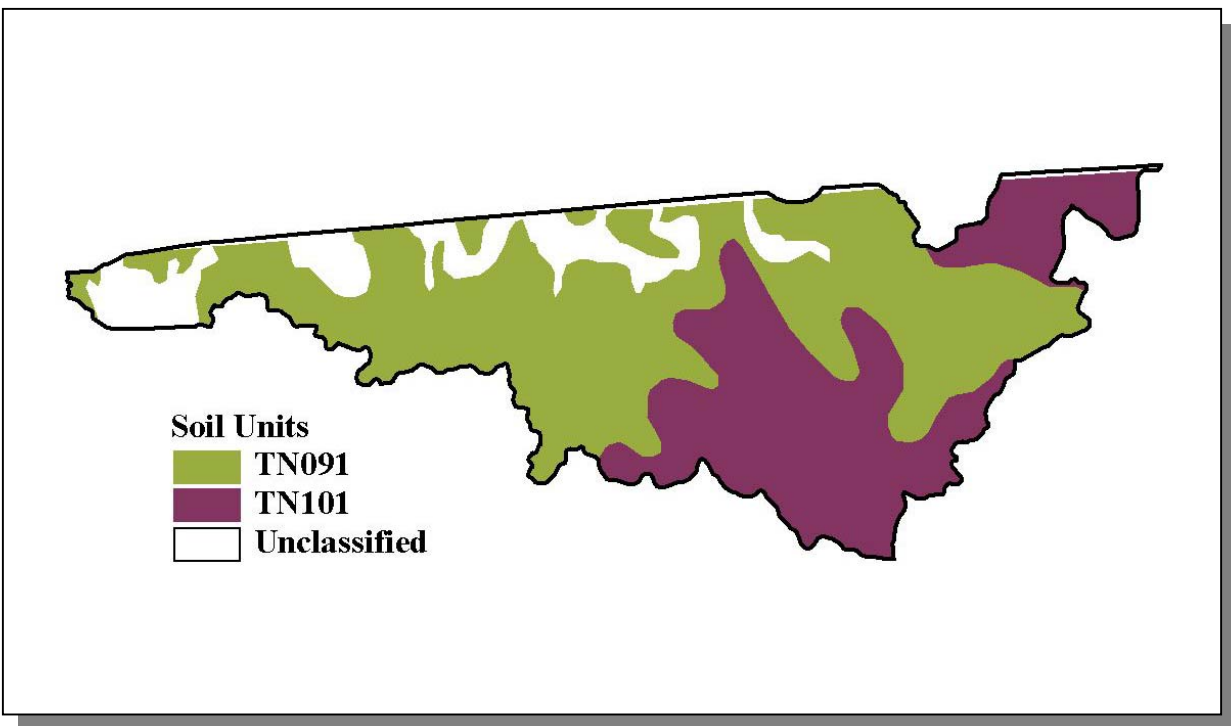


Figure 4-131. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050404.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN091	0.00	B	2.95	5.86	Loam	0.34
TN101	0.00	B	1.71	5.39	Loam	0.35

Table 4-117. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050404. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Clay	7,238	7,311	7,976	0.5	36	37	40	11.1
Pickett	4,548	4,631	4,945	12.36	562	572	611	8.7
Total	11,786	11,942	12,921		598	609	651	8.9

Table 4-118. Population Estimates in Subwatershed 051301050404.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Byrdstown	Pickett	998	429	308	115	6

Table 4-119. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051301050404.

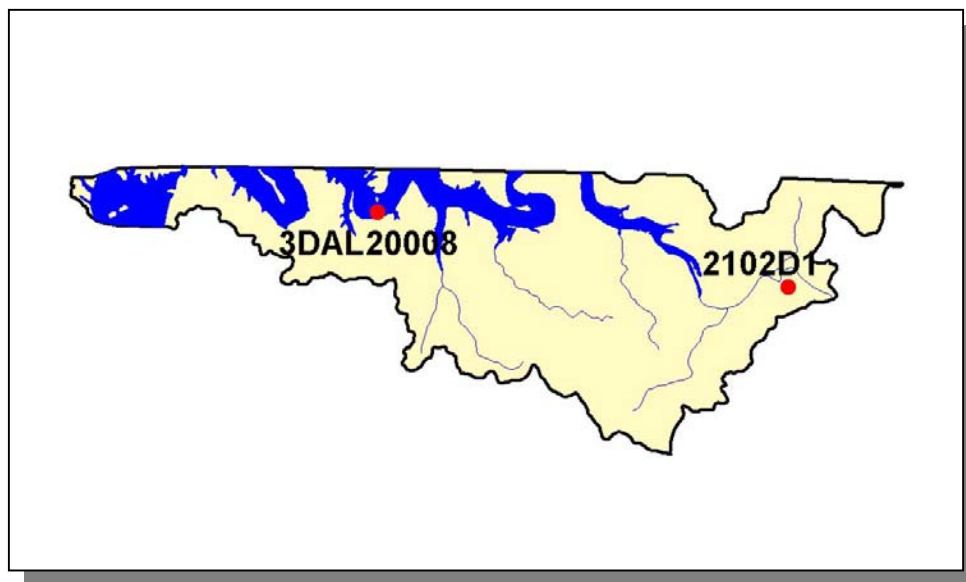


Figure 4-132. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301050404. More information, including site names and locations, is provided in Appendix IV.

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4.2.D.iv.a. Point Source Contributions.

There are no known point sources in this subwatershed.

4.2.D.iv.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS				
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
1,035	1,884	<5	<5	17

Table 4-120. Summary of Livestock Count Estimates in Subwatershed 051301050404. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Clay	0	14,574	0	18	174	23
Pickett	5,986	10,864	19	285	99	0

Table 4-121. Summary of Livestock Count Estimates in Clay and Pickett Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Clay	105.1	105.1	2.3	10.1
Pickett	68.4	68.4	0.2	0.6

Table 4-122. Forest Acreage and Annual Removal Rates (1987-1994) in Clay and Pickett Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.10
Grass (Hayland)	0.13
Legumes, Grass (Hayland)	0.09
Grass, Forbs, Legumes (Mixed Pasture)	0.74
Tobacco (Row Crops)	23.47
Farmsteads and Ranch Headquarters	7.09

Table 4-123. Annual Estimated Total Soil Loss in Subwatershed 051301050404.

4.2.D.v. 051301050405 (Spring Creek).

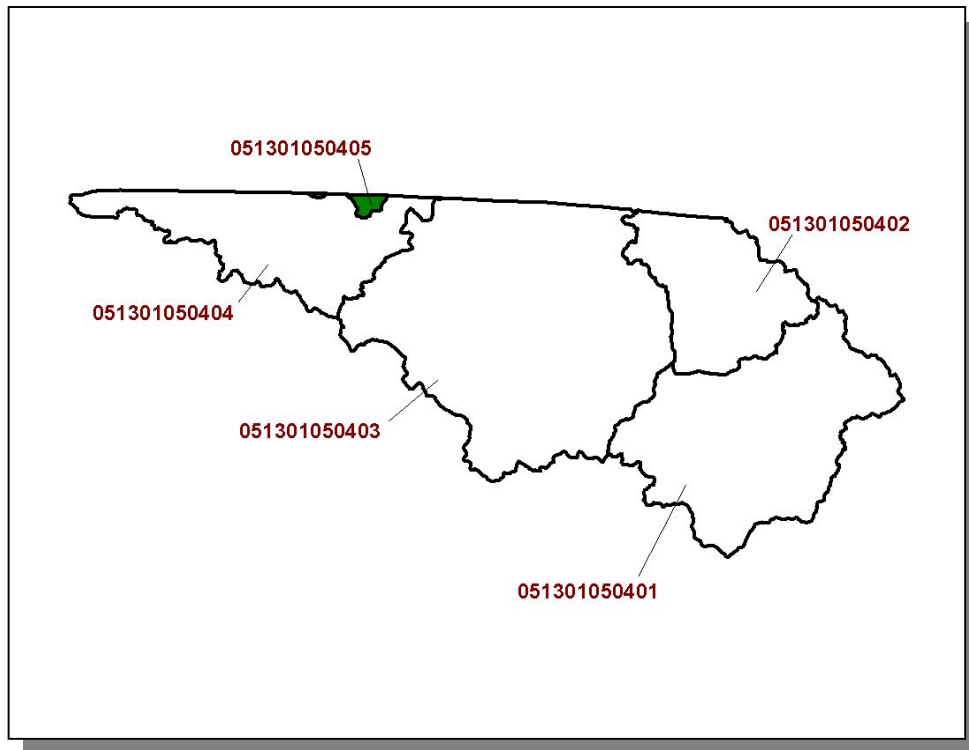


Figure 4-133. Location of Subwatershed 051301050405. All Obey River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

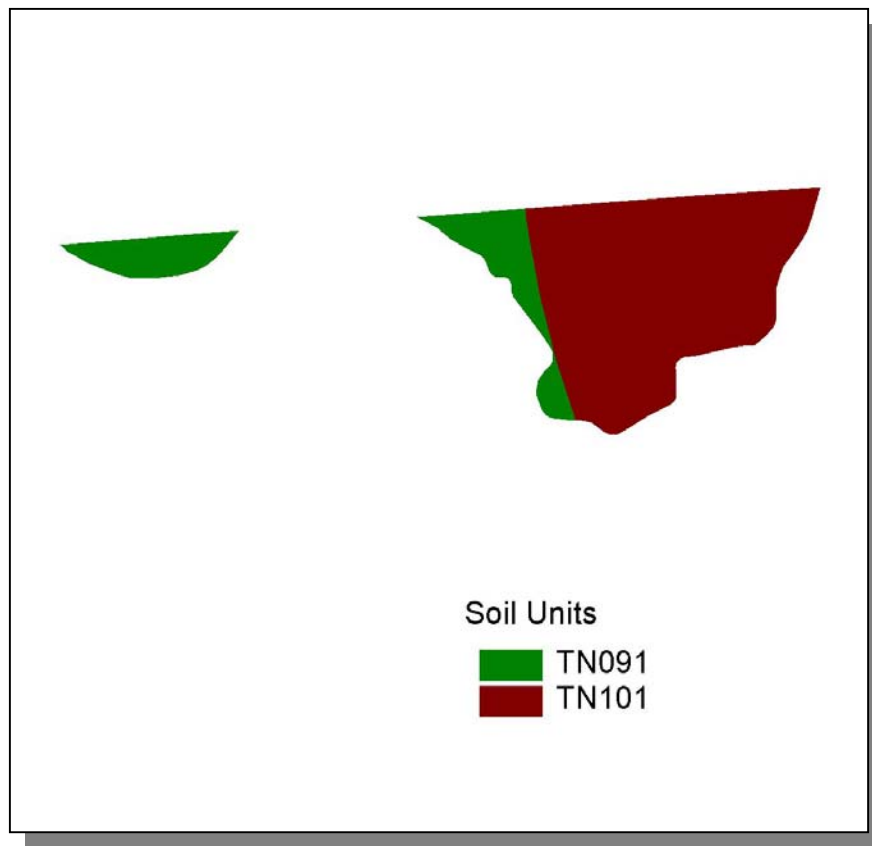


Figure 4-134. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050405.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN091	0.00	B	2.95	5.86	Loam	0.34
TN101	0.00	B	1.71	5.39	Loam	0.35

Table 4-124. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301050405. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Pickett	4,548	4,631	4,945	0.03	>5	>5	>5	NA

Table 4-125. Population Estimates in Subwatershed 051301050405. NA, Not applicable.

4.2.D.v.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.D.v.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS		
Beef Cow	Cattle	Hogs
90	163	<5

Table 4-126. Summary of Livestock Count Estimates in Subwatershed 051301050405. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
Pickett	5,986	10,864	19	285	99

Table 4-127. Summary of Livestock Count Estimates in Pickett County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Pickett	68.4	68.4	0.2	0.6

Table 4-128. Forest Acreage and Annual Removal Rates (1987-1994) in Pickett County.